

Application No. 10/561,778
Reply to Final Office Action of November 4, 2009

Amendments to and Listing of the Claims:

Please amend claim 1, so that the claims read as follows:

1. (Currently Amended) A fuel cell system comprising:
 - a hydrogen generator including:
 - a reformer configured to generate a hydrogen-rich gas containing carbon monoxide from a fuel containing hydrocarbon and water;
 - a shift converter configured to generate hydrogen and carbon dioxide from the carbon monoxide in the hydrogen-rich gas and the water; and
 - a carbon monoxide removing portion configured to reduce the carbon monoxide in the hydrogen-rich gas which has not been removed in said shift converter;
 - a fuel cell configured to generate power using the hydrogen-rich gas supplied from said hydrogen generator and an oxidizing gas;
 - an air supply portion configured to supply air to at least one of a position upstream of said reformer in a flow of the fuel and a position between said carbon monoxide removing portion and said fuel cell in the flow of the fuel; and
 - an impurity removing means configured to remove an impurity gas from the air, wherein the impurity removing means includes:
 - a sulfur oxide adsorbing portion having at least one of an adsorbing agent and an absorbing agent of the sulfur oxide, and
 - a catalytic combustor disposed upstream of the sulfur oxide adsorbing portion and configured to oxidize hydrogen sulfide into sulfur oxide.

2-17. (Cancelled).

18. (Previously Presented) The fuel cell system according to claim 1, wherein said catalytic combustor is positioned to exchange heat with said hydrogen generator or with an exhaust gas resulting from combustion which is used to heat said hydrogen generator.

19. (Previously Presented) The fuel cell system according to claim 1, wherein said sulfur oxide absorbing portion is positioned to exchange heat with said hydrogen generator or with an exhaust gas resulting from combustion which is used to heat said hydrogen generator.

20. (Previously Presented) The fuel cell system according to claim 1, wherein said catalytic combustor functions as said sulfur oxide absorbing portion and has a catalyst containing noble metal and alkaline earth metal, said catalytic combustor being positioned to exchange heat with said hydrogen generator or with an exhaust gas resulting from combustion which is used to heat said hydrogen generator.